REMARKS

In the Office Action, claims 1-24 were rejected. By the present Response, claims 1, 10, 11, 12, 21, 22, 23, and 24 are amended. Upon entry of the amendments, claims 1-24 remain pending in the present patent application. Reconsideration and allowance of all pending claims are requested in light of the above amendments and in view of the arguments summarized below.

Rejections Under 35 U.S.C. § 102

Claims 1-24 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,061,970 (hereinafter "Magneron"). Claims 1, 10, 11, 12, 21, 22, 23, and 24 are independent. All of the recited claims are believed to be patentable as cited below.

Claims 1, 10, 11, 12, 21, 22, 23, and 24 and Claims Depending Therefrom.

Magneron fails to teach facilitating communication in an *electrical power network.*

The Examiner argued that Magneron is believed to teach facilitating communication in an electrical power network having a complex impedance, comprising modifying the complex impedance, and determining whether such modifying affected a quality of the communication. The Examiner cited the passages at col. 2, lines 12-39, col. 3, lines 55-68 and col. 7, lines 42-65 in support of the rejection.

The cited passage at col. 2, lines 12-39 reads:

> According to the invention there is provided a *repeater station* for the *transmission of electric signals* covering a predetermined frequency band, comprising an equalizer having an adjustable signal level/frequency response slope, an automatic feedback control chain responsive to the output of the equalizer to vary the frequency response slope therefrom in a sense to maintain substantially constant the level of a reference component in the output signal having a predetermined frequency.

> According to the invention there is further provided a *repeater station* for equalizing electrical signals having a predetermined band width and passing along a transmission line the station comprising an equalizer having a signal level/frequency characteristic which generally complements that of the transmission line, feedback means for monitoring the output of the equalizer and responsive to a reference signal therein which is processed through the equalizer and has a frequency equal to the upper frequency in the predetermined bandwidth, the feedback means being operative to control the slope of the equalizer characteristic in a sense to maintain the monitored level of the reference signal at a predetermined level whereby to compensate the characteristic of the equalizer for variations in the characteristic of the transmission line due to changes in temperature and line length over a limited range. (Emphasis added).

The cited passage at col. 3, lines 55-68 reads:

> When the common tuning frequency of the two resonant circuits is adjusted so as to be in the vicinity of 300 MHz, the frequency response is that of curve IA of FIG. 3B. For signals having the resonant frequency, the attenuator passes these substantially without attenuation. Indeed, the resonant circuit of L104 and C105 offers minimum impedance which in effect short-circuits the series connected resistors R101 and R102. At the same time, the parallel resonant circuit L106 and C107 is an anti-resonant circuit (or rejector, tank, trap circuit) offering a maximum impedance; and it prevents the passage of the resonant frequency currents towards the chassis, which is the attenuation generation factor. The possibility of resonance frequency signals is further reduced if the input impedance of the amplifier 11 is high.

The cited passage at col. 7, lines 42-65 reads:

> A second direct current path passes therefore through the resistor 135, the diode 134, the choke coil 137, and the emitter-collector path of the transistor 136. The current flowing along this path is dependent upon the output voltage supplied to the base of the transistor 138 by the amplifier 144. Therefore, this current which is controlled by the transistor 138, when it increases, causes reduction in the high frequency resistance of D134 and so produces a voltage drop at the junction of the components D134, R135 and D136. This in turn decreases the current through the components

> D136, D131 and R130 and so increases the high frequency resistance of the diodes D131 and D136 to reduce the attenuator losses. Conversely, the resistance of the diode D134 tends towards infinity whereas that of the diodes D131 and D136 tends towards a minimum at a value of 75 ohms corresponding to the characteristic impedance of the attenuator. This impedance is maintained substantially at this value throughout the useful variation area of the attenuator.

Applicants have closely considered these passages and, indeed, the Magneron patent as a whole. The cited passages from Magneron, and the entire reference, do not support the Examiner's position, however. Applicants respectfully submit that Magneron teaches a *repeater station* for *cable transmission* of high frequency signals covering a predetermined wide band of frequencies and including a reference component having a predetermined frequency. More particularly, Magneron teaches a *television signal transmission system incorporating repeater stations*, where a ***dedicated coaxial cable*** is used for the distribution of television signals.

On the contrary, Applicants respectfully submit that the claims relate to *facilitating communication in an electrical power network* having a complex impedance. In other words, a signal to be communicated is superimposed on a power line voltage. Furthermore, an electrical outlet in the electrical power network may be configured to serve both as a source of electrical power and a port for the communication signal. More particularly, communications via the electrical power network are facilitated by modifying the complex impedance of the electrical power network and determining whether the modification of the complex impedance affected a quality of the communication. In other words, power lines in the electrical power network are employed to facilitate communication.

As set forth, for example, in paragraph 2 of the Application:

> In a power line communication (PLC) system, *a communication signal propagates over wires of an electrical power network.* PLC

> signaling is typically performed by superimposing a high frequency signal, e.g., a frequency greater than 20 KHz, on top of a power line voltage. An electrical outlet in the power network can serve as both a source of electrical power and a port for the communication signal. Thus, a PLC transceiver plugged into the electrical outlet receives both electrical power and the communication signal via the electrical outlet. Note however, that some PLC devices do not necessarily receive power from the power line, or at least do not depend on the power from the power line. Therefore, in a PLC system, the power line is used for communication purposes, and in some cases, communication can be conducted either when power is present or is not present. (Emphasis added.)

Accordingly, Applicants submit that as described in the specification of the present application, the electrical power network may advantageously be employed to facilitate communication. Furthermore, the quality of transmission may be enhanced by modifying the complex impedance associated with the electrical power network. In other words, this modification of the complex impedance of the electrical power network greatly facilitates substantially increasing the signal strength of the attenuated signal that propagates through the electrical power network.

As described hereinabove, Magneron teaches *repeater stations* for a *television signal transmission system*, where a dedicated coaxial cable is used for the distribution of television signals, while the present application teaches *facilitating communication employing an electrical power network.* Hence, Applicants respectfully submit that there is simply no similarity between the repeater stations for cable transmission in Magneron and the communication over the electrical power network in the claims. Magneron has nothing whatsoever to do with communications over an electrical power network. Applicants submit further that no one skilled in the art could glean the claimed invention from Magneron's teachings regarding television signal transmission over a dedicated coaxial cable.

For the reasons summarized hereinabove, Applicants respectfully submit that Magneron relied upon by the Examiner cannot support a *prima facie* case of anticipation of independent claims 1, 10, 11, 12, 21, 22, 23, and 24.

Further, claims 2-9 depend directly or indirectly on independent claim 1. Also, claims 13-20 depend directly or indirectly on independent claim 12. Accordingly, Applicants request that claims 2-9 and 13-20 are allowable by virtue of their dependency from allowable base claims, as well as for the subject matter they separately recite. Thus, it is respectfully requested that the rejection of claims 1-24 under 35 U.S.C 102(b) be withdrawn.

For the reasons summarized hereinabove, Applicants respectfully submit that the reference relied upon by the Examiner cannot support a *prima facie* case of anticipation of claims 1, 10, 11, 12, 21, 22, 23, and 24. Accordingly, Applicants respectfully submit that independent claims 1, 10, 11, 12, 21, 22, 23, and 24, and the claims depending therefrom are allowable and respectfully request the Examiner to reconsider rejection of the claims.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: 3/16/2006

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